

CERTIFICATE OF CONFORMITY

Issued to: Sigenergy Technology Co., Ltd.
Building12-2, 678 Yungqiao Road, China (Shanghai) Pilot Free Trade Zone,
Pudong New Area, Shanghai, China

For the product: Solar-storage system

Trade name: 

Type/Model: SigenMate 2700 Ultra
SigenMate Ultra-1, SigenMate Ultra-2, SigenMate Ultra-3, SigenMate Ultra-4,
SigenMate Ultra-5, SigenMate Ultra-6
SigenMate 2700 Ultra+
SigenMate Ultra+ -1, SigenMate Ultra+ -2, SigenMate Ultra+ -3, SigenMate Ultra+ -
4, SigenMate Ultra+ -5, SigenMate Ultra+ -6
SigenMate 2700 Ultra AC
SigenMate AC-1, SigenMate AC-2, SigenMate AC-3,
SigenMate AC-4, SigenMate AC-5, SigenMate AC-6
SigenMate 2700 Ultra+ AC
SigenMate+ AC-1, SigenMate+ AC-2, SigenMate+ AC-3, SigenMate+ AC-4,
SigenMate+ AC-5, SigenMate+ AC-6
Expansion Battery: SigenMate BAT 2700

Ratings: See Annex

Manufactured by: Sigenergy Technology Co., Ltd.
Building12-2, 678 Yungqiao Road, China (Shanghai) Pilot Free Trade Zone,
Pudong New Area, Shanghai, China

Requirements: EN 50549-1:2019+A1:2023
EN 50549-10:2022

This Test Certificate is granted on account of an examination by DEKRA, the results of which are laid down in a confidential file no. 6241710.50.

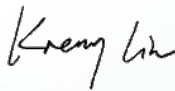
The examination has been carried out on one single specimen of the product. The Attestation does not include an assessment of the manufacturer's production. Conformity of this production with the specimen tested by DEKRA is not the responsibility of DEKRA.

This Test Certificate expires at the latest on 25 May 2031 or expires upon withdrawal of one of the above mentioned standards.

Shanghai, 25 May 2026

Number: 6241710.01COC

DEKRA Testing and Certification (Shanghai) Ltd.


Kreny Lin
Certification Manager



PCA-141

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Rating of products:				
X: the number of external battery pack, ranging from 1~6	SigenMate 2700 Ultra/ SigenMate Ultra - X	SigenMate 2700 Ultra+/ SigenMate Ultra+ - X	SigenMate 2700 Ultra AC/ SigenMate AC - X	SigenMate 2700 Ultra+ AC / SigenMate + AC - X
PV input				
Max. input power(W)	4000		--	
Vmax PV (Vdc) (absolute Max.)	60		--	
Start-up voltage (V)	16		--	
MPPT voltage range (V)	16-60			
Number MPP trackers	4		--	
Number input strings	2		--	
Max. input current per MPPT (Adc)	32		--	
Max. short-circuit current per MPPT (Adc)	44		--	
AC Output (on-grid)				
Normal AC Voltage (Vac)	220/230/240			
Frequency (Hz)	50			
Normal AC Current (A)	3.5	6.4	3.5	6.4
Normal Active Power (W)	800	1400	800	1400
Max Apparent Power (VA)	800	1400	800	1400
Power factor	0.8leading~0.8lagging			
AC Output (backup)				
Normal AC Voltage (Vac)	220/230/240			
Frequency (Hz)	50 / 60			
Normal Active Power (W)	1400			
Max AC Bypass output Power (W)	3600			
Peak output power (10 seconds) (W)	1800			
Max. parallel output power(2pcs) (W)	2800			
Max. parallel output power(3pcs) (W)	3600			
Power factor	0.8leading~0.8lagging			
Internal Battery				
Battery type	LiFePO4			
Cell capacity(Ah)	105			

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Capacity (kWh)	2.688	
Max. charge power (W)	1800	
Max. discharge power (W)	1400	
General Data		
Dimensions (W / H / D)	460/275/225	
Weight (kg)	29	28
Storage temperature range (°C)	-30~65	
Operating temperature range	-20~55	
Relative humidity range	0%~100%	
Max. operating altitude (m)	4000	
Cooling	Natural convection	
System ingress protection rating	IP66	
Installation method	Floor standing	
Communication	WLAN	
Firmware version	V100R001C00	

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Name of parameter set		EN50549-LV		
specific technical requirement (e.g. grid codes)		EN50549-1		
Clause(s) / subclause(s) of EN 50549-1:2019	Parameter a	Remarks/ additional information b	configurable value range	default value
4.4.2 Operating frequency range	47,0 – 47,5 Hz Duration	N/A	0 – 20 s	0s
	47,5 – 48,5 Hz Duration	N/A	30 – 90 min	30 min
	48,5 – 49,0 Hz Duration	N/A	30 – 90 min	30 min
	49,0 – 51,0 Hz Duration	N/A	not configurable	unlimited
	51,0 – 51,5 Hz Duration	N/A	30 – 90 min	30 min
	51, 5 – 52 Hz Duration	N/A	0 – 15 min	0 s
4.4.3 Minimal requirement for active power delivery at underfrequency	Reduction threshold	N/A	not configurable	49.5 Hz
	Maximum reduction rate	N/A	not configurable	10 % PM/Hz
4.4.4 Continuous operating voltage range	Upper limit	N/A	not configurable	110 % Un
	Lower limit	N/A	not configurable	85 % Un
4.5.2 Rate of change of frequency (ROCOF) immunity	ROCOF withstand capability (defined with a sliding measurement window of 500 ms) non-synchronous generating technology: synchronous generating technology:	N/A	not configurable	2 Hz/s 1 Hz/s
4.5.3.2 Under-voltage ride through (UVRT) Generating plant with non-synchronous generating technology	Maximum power resumption time	N/A	not configurable	1 s
	Voltage-Time-Diagram	N/A	see Figure 6 of EN 50549-1:2019	Time [s]
		N/A		U [p.u.]
		N/A		0.0
		N/A		0.15
		N/A		1.5
		N/A		180
		N/A		180

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4.5.4 Over-voltage ride through (OVRT)	Voltage-Time-Diagram	N/A	not configurable see Figure 8 of EN 50549-1:2019	Time [s]	U [p.u.]
		N/A		0.0	1.25
		N/A		0.1	1.25
		N/A		0.1	1.20
		N/A		5.0	1.20
		N/A		5.0	1.15
		N/A		60	1.15
		N/A		60	1.10
4.6.1 Power response to overfrequency	Threshold frequency f ₁	N/A	50.2 Hz – 52 Hz	50.2 Hz	
	Droop	N/A	2 % – 12 %	5 %	
	Power reference	N/A	PM P _{max}	P _{MAX}	
	Intentional delay	N/A	0 – 2 s	0s	
	Deactivation threshold f _{stop}	N/A	50.0 Hz – f ₁	deactivated	
	Deactivation time t _{stop}	N/A	0 – 600 s	-	
	Acceptance of staged disconnection	N/A	yes no	yes	
4.6.2 Power response to underfrequency	Threshold frequency f ₁	N/A	49.8 Hz – 46 Hz	49.8 Hz	
	Droop	N/A	2 – 12 %	5 %	
	Power reference	N/A	PM P _{max}	P _{max}	
	Intentional delay	N/A	0 – 2 s	0 s	
4.7.2.2 voltage support by reactive power - Capabilities	Active factor / Reactive power (%P _d) range overexcited	N/A	0.9 – 1 / 48 %P _d -0 0.95 – 1 / 33 %P _d -0	48 %P _d -0	
	Active factor /	N/A	0.9 – 1 / 48 %P _d -0	48 %P _d -0	

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	Reactive power (%Pd) range underexcited		0.95 – 1 / 33 %P _d - 0	
4.7.2.3 voltage support by reactive power - Control modes	Enabled control mode	N/A	Q setp. cos φ setp. Q(U) cos φ (P) / Q(P)	Q set point
4.7.2.3.2 voltage support by reactive power - Set point control modes	Q set point and excitation	N/A	0 – 48 % P _D . 0 –33 %P _D	0
	cos φ set point and excitation	N/A	1 – 0.9	N/A
4.7.2.3.3 voltage support by reactive power - Voltage related control modes	Characteristic curve Q(U)	N/A	Setting (a)/(b)/(c)	Setting (a)
	Time constant	N/A	3 s – 60 s	3 s
	Min cos φ	N/A	0.0 – 1	0.4
	Lock-in power	N/A	0 % – 20 %	deactivated
	Lock-out power	N/A	0 % – 20 %	deactivated
4.7.2.3.4 voltage support by reactive power - Power related control mode	Characteristic curve Cos φ(P) / Q (P)	N/A	Setting (a)/(b)/(c)	Setting (a)
	Time constant	N/A	3 s – 60 s	3 s
	Lock-in power	N/A	0 % – 20 %	deactivated
	Lock-out power	N/A	0 % – 20 %	deactivated
4.7.3 Voltage related active power reduction	Characteristic curve P (U)	N/A	Setting (a)/(b)/(c)	Setting (a)
	Time constant	N/A	3 s – 60 s	3 s

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Clause(s) / subclause(s) of EN 50549-1:2019	Parameter a	Remarks/ additional information b	configurable value range	default value
	Min $\cos \varphi$	N/A	0.0 – 1	0.4
	Lock-in power	N/A	0 % – 20 %	deactivated
	Lock-out power	N/A	0 % – 20 %	deactivated
4.7.4.2.2 Zero current mode for converter connected generating technology / Generating Plant with non-synchronous generator	Enabling	N/A	enable disable	disable
	Static voltage range overvoltage	N/A	100 % U_N – 120 % U_N	110 % U_N
	Static voltage range undervoltage	N/A	20 % U_N – 100 % U_N	90 % U_N
4.9.3 Requirements on voltage and frequency protection	Threshold for protection as dedicated device [in A or kW, kVA]	N/A	0.8 kw-1.4 kw	0.8 kw-1.4 kw
	Undervoltage threshold stage 1	N/A	0.2 U_N – 1 U_N	0.80 U_N
	Undervoltage operate time stage 1	N/A	0.1 s – 100 s	5.00 s
	Undervoltage threshold stage 2	N/A	0.2 U_N – 1 U_N	0.50 U_N
	Undervoltage operate time stage 2	N/A	0.1 s – 5 s	2.00 s
	Overvoltage threshold stage 1	N/A	1.0 U_N – 1.2 U_N	1.15 U_N
	Overvoltage operate time stage 1	N/A	0.1 s – 100 s	61.0 s
	Overvoltage threshold stage 2	N/A	1.0 U_N – 1.3 U_N	1.25 U_N
	Overvoltage operate time stage 2	N/A	0.1 s – 5 s	0.20 s
	Overvoltage threshold 10 min mean protection	N/A	1.0 U_N – 1.15 U_N	1.10 U_N
	Underfrequency threshold stage 1	N/A	47.0 Hz– 50.0 Hz	47.50 Hz

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Clause(s) / subclause(s) of EN 50549-1:2019	Parameter a	Remarks/ additional information b	configurable value range	default value
	Underfrequency operate time stage 1	N/A	0.1 s – 100 s	0.50 s
	Underfrequency threshold stage 2	N/A	47.0 Hz – 50.0 Hz	47.00 Hz
	Underfrequency operate time stage 2	N/A	0.1 s – 5 s	0.20 s
	Overfrequency threshold stage 1	N/A	50.0 Hz – 52.0 Hz	51.50 Hz
	Overfrequency operate time stage 1	N/A	0.1 s – 100 s	0.50 s
	Overfrequency threshold stage 2	N/A	50.0 Hz – 52.0 Hz	52.00 Hz
	Overfrequency operate time stage 2	N/A	0.1 s – 5 s	0.20 s
4.10.2 Automatic reconnection after tripping	Lower frequency	N/A	47.0 Hz – 50.0 Hz	49.5 Hz
	Upper frequency	N/A	50.0 Hz – 52.0 Hz	50.2 Hz
	Lower voltage	N/A	50 % U_n – 100 % U_n	85 % U_n
	Upper voltage	N/A	100 % U_n – 120 % U_n	110 % U_n
	Observation time	N/A	10 s – 600 s	60 s
	Active power increase gradient	N/A	6 % – 3000 %/min	10 % /min
4.10.3 Starting to generate electrical power	Lower frequency	N/A	47.0 Hz – 50.0 Hz	49.5 Hz
	Upper frequency	N/A	50.0 Hz – 52.0 Hz	50.1 Hz
	Lower voltage	N/A	50 % – 100 % U_n	85 % U_n
	Upper voltage	N/A	100 % – 120 % U_n	110 % U_n
	Observation time	N/A	10 s – 600 s	60 s
	Active power increase gradient	N/A	6 % – 3000 %/min	disabled
4.11.1 Ceasing active power	activation option	N/A	e.g. digital input, IEC 61850, sunspec	
4.11.2 Reduction of active power on set point	activation option	N/A	e.g. digital input, IEC 61850, sunspec	

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Clause(s) / subclause(s) of EN 50549-1:2019	Parameter a	Remarks/ additional information b	configurable value range	default value
4.12 Remote information exchange	available communication standards	N/A	e.g. IEC 61850, sunspec	
Note: ^a If additional parameters have been evaluated during the test, these shall be added as additional lines in the table. ^b This column should be used for manufacturer specific parameter descriptions.				

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